

CLAIMS

1 A method for processing shared sub-packets in a
2 communication system, the method comprising:

3 generating a first control channel comprising an identity of at least
4 one subscriber station and a number of second control channels;

5 generating at least one second control channel comprising
6 information enabling the at least one subscriber station to demodulate a
traffic channel.

7 2 The method as claimed in claim 1, wherein said
8 generating at least one second control channel comprising information
9 enabling the at least one subscriber station to demodulate a traffic channel
10 comprises:

11 generating at least one second control channel comprising a
12 number of code channels encoding a unit of the traffic channel.

13 3 The method as claimed in claim 1, wherein said
14 generating at least one second control channel comprising information
15 enabling the at least one subscriber station to demodulate a traffic channel
16 comprises:

17 generating at least one second control channel comprising a
18 number of sub-divisions and a starting sub-division of a unit of the traffic
19 channel.

20 4 The method as claimed in claim 1, further comprising:
21 transmitting the first control channel at a power required by a
22 subscriber station with the worst forward link quality metric for which the
23 first control channel is intended.

5 The method as claimed in claim 1, further comprising:
2 transmitting the at least one second control channel at a power
 required by the at least one subscriber station for which the at least one
4 second control channel is intended.

6 A method for processing shared sub-packets at a
2 subscriber station, the method comprising:
 demodulating a first control channel comprising an identity of at
4 least one subscriber station and a number of control channels;
 demodulating a second control channel comprising information
6 enabling a subscriber station to demodulate a traffic channel if the identity
 is identical to an identity of the subscriber station; and
8 demodulating the traffic channel in accordance with said enabling
 information.

7 The method as claimed in claim 6, wherein said
2 demodulating a first control channel comprising identity of a subscriber
 station comprises:
4 demodulating a pre-determined control channel.

8 The method as claimed in claim 6, wherein said
2 demodulating a second control channel comprising information enabling a
 subscriber station to demodulate a traffic channel if the identity is identical
4 to an identity of the subscriber station comprises:
 determining position of the identity within the received first control
6 channel;
 selecting a second control channel in accordance with said
8 determined position; and
 demodulating said selected second control channel.

9 The method as claimed in claim 8, wherein said
2 selecting a second control channel in accordance with said determined
 position comprises:

4 establishing a code encoding a second control channel in
 accordance with a relationship between said determined position and the
6 code; and

 demodulate the second control channel encoded by said
8 established code.

10 The method as claimed in claim 6, wherein said
2 demodulating the traffic channel in accordance with said enabling
 information comprises:

4 determining a size of traffic channel unit and a number of code
 channels in accordance with the enabling information if the traffic channel
6 unit is code multiplexed; and

 demodulate the traffic channel unit.

11 The method as claimed in claim 6, wherein said
2 demodulating the traffic channel in accordance with said acquired
 enabling information comprises:

4 determining a number of sub-divisions of traffic channel unit and a
 starting sub-division in accordance with the enabling information if the
6 traffic channel unit is time multiplexed; and

 demodulate the traffic channel unit.

12 A method for processing shared sub-packets in a
2 communication system, the method comprising:

 generating a first control channel comprising an identity of at least
4 one subscriber station and a number of second control channels;

generating at least one second control channel comprising
6 information enabling the at least one subscriber station to demodulate a
traffic channel;

8 transmitting the control channels:

demodulating the received first control channel;

10 determining an identity of at least one subscriber station and a
number of second control channels in accordance with said demodulated
12 first control channel;

demodulating a second control channel comprising information
14 enabling a subscriber station to demodulate a traffic channel if the identity
is identical to an identity of the subscriber station; and

16 demodulating the traffic channel in accordance with said enabling
information.

13 The method as claimed in claim 12, wherein said
2 generating at least one second control channel comprising information
enabling the at least one subscriber station to demodulate a traffic channel
4 comprises:

generating at least one second control channel comprising a
6 number of code channels encoding a unit of the traffic channel.

14 The method as claimed in claim 12, wherein said
2 generating at least one second control channel comprising information
enabling the at least one subscriber station to demodulate a traffic channel
4 comprises:

generating at least one second control channel comprising a
6 number of sub-divisions and a starting sub-division of a unit of the traffic
channel.

15 The method as claimed in claim 12, wherein said
2 transmitting the control channels comprises:

transmitting the first control channel at a power required by a
subscriber station with the worst forward link quality metric for which the
first control channel is intended.

16 The method as claimed in claim 15, further comprising:
transmitting the at least one second control channel at a power
required by the at least one subscriber station for which the at least one
second control channel is intended.

17 The method as claimed in claim 12, wherein said
demodulating the received first control channel comprises:
demodulating a pre-determined control channel.

18 The method as claimed in claim 12, wherein said
demodulating a second control channel comprising information enabling a
subscriber station to demodulate a traffic channel if the identity is identical
to an identity of the subscriber station comprises:

determining position of the identity within the received first control
channel;

selecting a second control channel in accordance with said
determined position; and

demodulating said selected second control channel.

19 The method as claimed in claim 18, wherein said
selecting a second control channel in accordance with said determined
position comprises:

establishing a code encoding a second control channel in
accordance with a relationship between said determined position and the
code; and

demodulate the second control channel encoded by said
established code.

20 The method as claimed in claim 12, wherein said
2 demodulating the traffic channel in accordance with said enabling
information comprises:

4 determining a size of traffic channel unit and a number of code
channels in accordance with the enabling information if the traffic channel
6 unit is code multiplexed; and

demodulate the traffic channel unit.

21 The method as claimed in claim 12, wherein said
2 demodulating the traffic channel in accordance with said acquired
enabling information comprises:

4 determining a number of sub-divisions of traffic channel unit and a
starting sub-division in accordance with the enabling information if the
6 traffic channel unit is time multiplexed; and

demodulate the traffic channel unit.